What is Claimed is:

1. An apparatus measuring the parameters in a volume with V=V(t), where t is time; the apparatus comprising:

two signal sources A=A(t), B=B(t) with $A(t)=B(t)K_0$, where $K_0>1$, $V(t)=B(t)K_1$, where K_0, K_1 are stationary in a time interval t_0, where t_0 is any real value; and

detectors to measure the $B'(t)=B(t)+N_B(t)$ and the one assigned as $C'(t)=C(t)+N_A(t)$, where C'(t) can be either $V'(t)=V(t)+N_V(t)$ or $A'(t)=A(t)+N_A(t)$, $N_B(t)$ is the noise of B(t), $N_A(t)$ is the noise of A(t), and $N_V(t)$ is the noise of V(t) during the measurement time interval t_0,

wherein the measured signals B'(t) and C'(t) are transferred into electro optical signals and sent into a data processor to analyze either K_0 or K_1.

2. An apparatus as claimed in Claim 1 wherein V=V(t) comprises:

an additional property of V(t)=K2P(t), where P(t) is the pressure in V(t), K2 is stationary in the time interval t0, and t0 is any real number; and

detectors to measure $P'(t)=P(t)+N_P(t)$, wherein $N_P(t)$ is the noise of P(t) during the measurement time interval t_0, to transfer the measured B'(t) and P'(t) into electro-optical signal and send the signal into a data processor to analyze K_2.

3. An apparatus as claimed in Claim 2, wherein the concentration of B is calculated from K_2.

4. An apparatus as claimed in Claim 2, wherein the elasticity of V(t) is calculated from K_2.

5. An apparatus as claimed in Claim 2, wherein the t_m is found at which $V(t_m)=V$ at maximum volume from A(t) or P(t).

6. An apparatus as claimed in Claim 5, wherein the $V(t_m)$ is guiding the injection of an ingredient into V at t_m.

7. An apparatus as claimed in Claim 1, wherein K_0 or K_1 is used to analyze the concentration of B.

8. An apparatus as claimed in Claim 2, wherein K_2 is used to analyze the concentration of B.

9. An apparatus as claimed in Claim 1 or 2, wherein one of the P'(t) or C'(t) is assigned as E'(t), said data processor analyze the original data B'(t) and E'(t) by the following steps:

   (a) performing a mathematical transformation T on both E'(t) and B'(t);

   (b) estimating K_R from the following relation: $F_i[E'(t)]/Fi[B'(t)] \approx K_R$, R:0, or 1, or 2 accordingly where F_i is the i^{th} order component of the transformation T; and

   (c) determining the ratio of two signals E(t) and B(t) from the estimated K_R.

10. An apparatus as claimed in Claim 9, wherein the mathematical transformation T is linear, said processor further performing the steps of:

   (d) identifying and estimating $F_i[N_B(t)]$ by the noise around $F_i[E(t)]$; and

   (e) determining the estimated K_R from the following relation:

$$\{F_i[E'(t)]-F_i[N_B(t)]\}/\{F_i[B'(t)]-F_i[N_B(t)]\} \approx K_R.$$

11. An apparatus as claimed in Claim 9, the processor further performing the step of:

   (f) approximation K_R from the largest value of Fi[E'(t)]-Fi[NB(t)] for all kinds of linear transformation T and all possible orders of the transformation T, based on the following relation:

$$\{F_i[E'(t)]-F_i[N_B(t)]\}/\{F_i[B'(t)]-F_i[N_B(t)]\} \leq K_R.$$

12. An apparatus as claimed in Claim 9, wherein

E'(t) is statistically confident to be not noisy such that $N_E(t) \approx 0$,

$E'(t)=E(t)+N_E(t) \approx E(t)$,

$B'(t)=B(t)+N_B(t)$, and

$E(t)=K_R*B(t)$,

said method comprising the steps of:

(a) performing a mathematical transformation T on both E'(t) and B'(t);

(b) estimating K_R from the following relation:

$F_i[E'(t)]/Fi[B'(t)] \approx K_R$

where Fi is the i^{th} order component of the transformation T and the position of Fi[B'(t)] is identified by the noise around $F_i[E'(t)]$; and

(c) determining the ratio of two signals E(t) and B(t) from the estimated K_R.

13. An apparatus as claimed in Claim 12, wherein the mathematical transformation T is linear, further comprising the steps of:

(d) identifying and estimating $F_i[N_B(t)]$ by the noise around $F_i[E(t)]$, and denoting the estimating of $F_i[N_B(t)]$ to be $F_i[N_E(t)]$; and

(e) estimating K_R from the following relation:

$$F_i[E(t)]/\{F_i[B'(t)]-F_i[N(t)]\} \approx K_R.$$

14. An apparatus as claimed in Claim 13, further comprising the steps of:

(f) approximation K_R from the largest value of Fi[E'(t)]-Fi[NB(t)] for all kinds of linear transformation T and all possible orders i of the transformation T, based on the following relation:

$$F_i[E(t)]/\{F_i[B'(t)]-F_i[N(t)]\} \leq K_R.$$

15. An apparatus as claimed in Claim 10 or 13, wherein the transformation T is Fourier transform.

16. An apparatus as claimed in Claim 15, wherein the F_i is F_1, the first harmonic of the Fourier transform.

17. An apparatus as claimed in Claim 9, wherein the step for determining a ratio of two signals E(t) and B(t) based on two real signals E'(t) and B"(t) including noise $N_E(t)$ and $N_B(t)$, respectively, wherein:

E'(t) is a least noisy signal;

$E'(t)=E(t)+N_E(t)$,

$B'(t)=B(t)+N_B(t)$, and

$E(t)=K_R*B(t)$,

comprising the steps of:

(a) identifying the minimum of B(t), $B'(t)_{min}$, by E'(t); and

(b) removing the static noise by $[B'(t)-B'(t)_{min}]$.

18. An apparatus as claimed in Claim 17, further comprising the steps of approximating K_R by using the following relation:

Maximum of $[E(t)-E(t)_{min}]$/Maximum of $[B(t)-B(t)_{min}] \approx K_R$,

where $E(t)_{min}$ and $B(t)_{min}$ are the minimum of E(t) and B(t), respectively.

19. An apparatus as claimed in Claim 17, further comprising the steps of approximating K_R by using the following relation:

$F_i[E(t)-E(t)_{min}]/F_i[B'(t)-B(t)_{min}]/ \approx K_R$,

where both E(t) and B(t) are periodic and $E(t)_{min}$ and $B(t)_{min}$ are the minimum of E(t) and B(t), and F_i is the i^{st} order of a transformation.

20. An apparatus as claimed in Claim 2, wherein the volume change in a periodic way.

21. An apparatus as claimed in Claim 1, wherein the signal comprises induced signal.

22. An apparatus as claimed in Claim 21, wherein the signal comprises and electromagnetic wave.

23. An apparatus as claimed in Claim 21, wherein the induced signal comprises mechanical wave.

24. An apparatus as claimed in Claim 1, wherein a signal source in the volume comprises a marker.

25. An apparatus as claimed in Claim 1, wherein the volume comprises blood.

26. An apparatus as claimed in Claim 1, wherein the volume comprises tissue.

27. An apparatus as claimed in Claim 1, wherein a signal source comprises hemoglobin.

28. An apparatus as claimed in Claim 1, wherein a signal source comprises uric acid.

29. An apparatus as claimed in Claim 2 further comprises a pressure source for generating the volume change.

30. An apparatus as claimed in Claim 1, wherein volume change in a periodic way.

31. An apparatus as claimed in Claim 9, wherein the volume comprises blood, the blood pressure is measured by signal E'(t).

32. An apparatus as claimed in Claim 31, further comprising a instrument for measuring the blood flow F'(t) in the volume, and means for determining K_p, which is an indicator of perfusion efficiency, based on the following relation: $F(t)= K_pE(t)$.

33. An apparatus as claimed in Claim 6, further comprising an ingredient detector for injecting another ingredient in accordance with the result of the detector.

34. An apparatus as claimed in Claim 33, wherein said ingredient comprises glucose and said another ingredient comprises insulin.

35. An apparatus as claimed in Claim 1, wherein signal is transmitted through communication.

36. An apparatus as claimed in Claim 1, wherein the volume is in a man-made system.

37. An apparatus as claimed in Claim 1, wherein the signal source comprises DNA.

38. An apparatus as claimed in Claim 1, wherein the signal source comprises RNA.

39. An apparatus as claimed in Claim 1, wherein the signal source comprises protein.

40. An apparatus as claimed in Claim 1, wherein the signal source comprises colored molecular.

41. An apparatus as claimed in Claim 4, wherein the V is a pixie of $V(x,y,z)$, a much larger volume.

42. An apparatus as claimed in Claim 41, wherein the $V(x,y,z)$ is compared with $V(x+\Delta x,y+\Delta y,z+\Delta z)$ in which Δx, Δy, Δz are the size of the pixie.

43. An apparatus as claimed in Claim 41, wherein the $V(x,y,z)$ is compared with $Vs(x,y,z)$ a stored value in the processor.

44. An apparatus as claimed in Claim 1, wherein the signal source comprises glucose.

45. An apparatus as claimed in Claim 1, wherein the signal source comprises cholesterol.

46. An apparatus as claimed in Claim 1, wherein the signal source comprises triglycerol.

47. An apparatus as claimed in Claim 1, wherein the signal source comprises enamation.